



to make this submission timely, to the Deposit Account No. 20-0782/AMAT/7729/KMT.

Respectfully submitted,



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PTO/SB/08a (08-03)

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 1

of

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Application Number

10/688,797

Filing Date

October 17, 2003

First Named Inventor

Singh, et al.

Group Art Unit

160

Examiner Name

Unknown

Attorney Docket Number

AMAT/7729/TCG/EPI/LE

Submission Date

February 10, 2004

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	A1	US-6632279B1	10/14/2003	Ritala, et al.	
	A2	US-6630413B2	10/07/2003	Todd	
	A3	US-6559520B2	05/06/2003	Matsuki, et al.	
	A4	US-6544900B2	04/08/2003	Raaijmakers, et al.	
	A5	US-6534395B2	03/18/2003	Werkhoven, et al.	
	A6	US-6511539B1	01/28/2003	Raaijmakers	
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	B1	WO 02/097864 A2	12/05/2002	WIPO		
	B2	WO 02/080244 A2	10/10/2002	WIPO		
	B3	WO 02/065525 A1	08/22/2002	WIPO		
	B4	WO 02/065517 A2	08/22/2002	WIPO		
	B5	WO 02/065516 A2	08/22/2002	WIPO		

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Sheet 2

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First Named Inventor	Singh, et al.
Group Art Unit	160
Examiner Name	Unknown
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	A1	US-6305314B1	10/23/2001	Sneh, et al.	
	A2	US-6287965B1	09/11/2001	Kang, et al.	
	A3	US-6284686B1	09/04/2001	Marlor	
	A4	US-6284646B1	09/04/2001	Leem	
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	A5	US-20030049942A1	03/13/2003	Haukka, et al.	
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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet 7

of 9

Application Number	10/688,797
Filing Date	October 17, 2003
First Named Inventor	Singh, et al.
Group Art Unit	160
Examiner Name	Unknown
Attorney Docket Number	AMAT/7729/TCG/EPI/LE
Submission Date	February 10, 2004

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	A1	US-			
	A2	US-			
	A3	US-			
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	A11	US-			
	A12	US-			
	A13	US-			
	A14	US-			
	A15	US-			
	A16	US-			
	A17	US-			
	A18	US-			

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Number-Kind Code <sup>2</sup> (if known)				
	B1	EP 1 150 345 A2	10/31/2001	EUROPEAN		
	B2					
	B3					
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## **NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
	C1	Argarwal, <i>et al.</i> "Challenges in Integrating the High-K Gate Dielectric Film to the Conventional CMOS Process Flow," Mat. Sec. Soc. Sump. Proc. Vol. 670 (2001)	
	C2	Bedair, "Atomic Layer Epitaxy Deposition Processes," J. Vac. Sci. Technol. B., Vol. 12, No. 1, Jan/Feb 1994	
	C3	Choi, <i>et al.</i> "The Effect of Annealing on Resistivity of Low Pressure Chemical Vapor Deposited Titanium Diboride," J. Appl. Phys. 69(11), 1 June 1991	
	C4	Choi, <i>et al.</i> "Stability of TiB <sub>2</sub> as a Diffusion Barrier on Silicon," J. Electrochem. Soc., Vol. 138, No. 10, October 1991	
	C5	Derbyshire, "Applications of Integrated Processing," Solid State Technology, December 1994	
	C6	Elers, <i>et al.</i> "NbCl <sub>5</sub> as a Precursor in Atomic Layer Epitaxy," Applied Surface Science 82/83 (1994) 468-474	
	C7	George, <i>et al.</i> , "Surface Chemistry for Atomic Layer Growth," J. Phys. Chem. 1996, 100, 13121-13131	
	C8	Hwang, <i>et al.</i> "Nanometer-Size $\alpha$ -PbO <sub>2</sub> -type TiO <sub>2</sub> in Garnet: A Thermobarometer for Ultrahigh-Pressure Metamorphism," Science Vo. 288 (14 Apr 2000)	
	C9	Jeong, <i>et al.</i> "Plasma-assisted Atomic Layer Growth of High-Quality Aluminum Oxide Thin Films," Jpn. J. Appl. Phys. 1, Regul. Pap. Short Notes, Vol. 40, No. 1, Jan 2001	
	C10	Jeong, <i>et al.</i> "Growth and Characterization of Aluminum Oxide Al <sub>2</sub> O <sub>3</sub> Thin Films by Plasma-assisted Atomic Layer Controlled Deposition," J. Korean Inst. Met. Mater., Vol. 38, No. 10, Oct. 2000	
	C11	Imai, <i>et al.</i> Jpn. J. Appl. Phys., 30 (1991) 3646.	

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	C12	Lee, <i>et al.</i> "Cyclic Technique for the Enhancement of Highly Oriented Diamond Film Growth," Thin Solid Films 303 (1997) 264-269	
	C13	Lubben, <i>et al.</i> "Mechanisms and kinetics of Si atomic-layer epitaxy on Si(001)2X1 from Si <sub>2</sub> H <sub>6</sub> ," J. Vac. Sci. Technol. A 9 (6), Nov/Dec 1991, 3003-3011.	
	C14	Min, <i>et al.</i> "Metal-organic Atomic-layer Deposition of Titanium-silicon-nitride Films," Applied Physics Letters, Vol. 75, No. 11 (11 Sep 1999)	
	C15	Min, <i>et al.</i> "Chemical Vapor Deposition of Ti-Si-N Films with Alternating Source Supply," Mat. Res. Soc. Symp. Proc. Vol. 564 (1999)	
	C16	Paranjpe, <i>et al.</i> "Atomic Layer Deposition of AlO <sub>x</sub> for Thin Film Head Gap Applications," J. Electrochem. Soc., Vol. 148, No. 9, Sep. 2001	
	C17	Ritala, <i>et al.</i> "Atomic Layer Deposition of Oxide Thin Films with Metal Alkoxides as Oxygen Sources," Science Vol. 288 14 Apr 2000	
	C18	Suda, <i>et al.</i> "Adsorption and thermal dissociation of disilane (Si <sub>2</sub> H <sub>6</sub> ) on Si(100)2X1," J. Vac. Sci. Technol. A8 (1), Jan/Feb 1990, 61-67.	

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